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LIVESTOCK-PRODUCTION UNITS, ANNUAL 1910-57 [1]

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Livestock-production units provide a basis for making estimates of the feed needed for livestock production at the national level.

Two sets of livestock-production units are presented in this report. One set is constructed by weighting the aggregate production of each livestock item by the grain and concentrates needed per unit of product. The other set is constructed by weighting with the total feed needed per unit of product.

The calculation of livestock-production units is similar to that in which feed needs at the national level are estimated from the number of animal units. [2] Although not available until the end of each feeding year, it is a more accurate measure for past periods of time, because livestock-production units are more closely related to trends in feed consumption than are animal units (figs. 1 and 2). Improvements in feeding efficiency, substitutions of feed for other farm resources, delayed feeding, and feeding of cattle and hogs to heavier or lighter weights are accounted for directly.

Livestock-production units [3] are calculated from Department of Agriculture estimates of annual production of milk and eggs, and annual live-weight production of hogs, cattle, sheep, chickens, broilers, and turkeys. The numbers of horses and mules on farms on January 1 and the number of goats clipped during the year are used to complete the livestock picture. As the

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[1] This report supersedes Livestock Production Units, Annual 1910-56, U. S. Agr. Res. Serv., ARS 43-80.

[2] See Animal Units of Livestock Fed Annually, 1909 to 1958, U. S. Dept. Agr. Statis. Bul., 12 pp., illus., 1959. (In process).

[3] Livestock production units are calculated on the basis of 100 pounds live weight produced for meat-producing livestock, per 1,000 pounds of milk produced, per 1,000 eggs produced, per head of horses and mules, and per goat clipped.

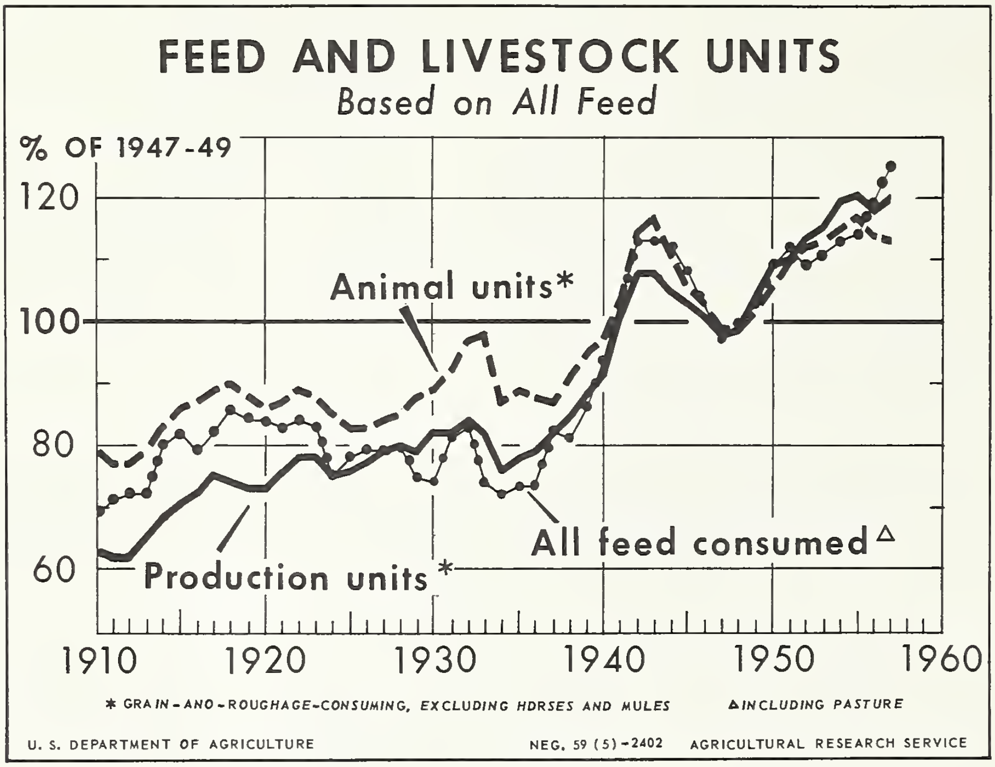


Figure 1

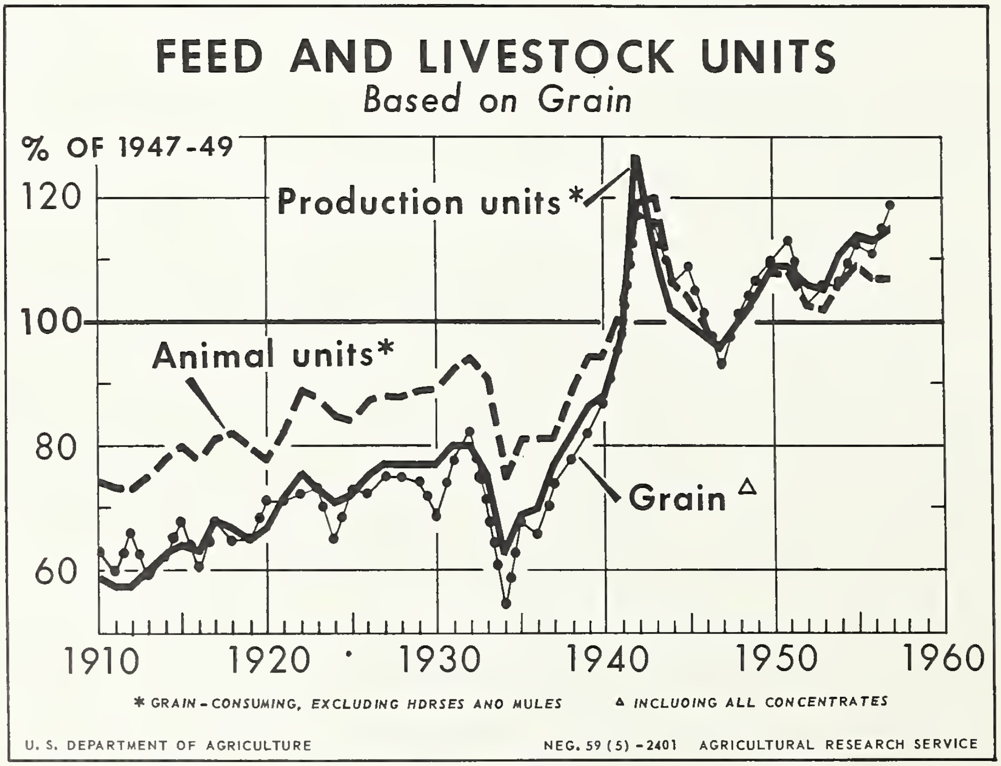


Figure 2

livestock-production units are to be related to national feed supply and consumption, both of which are reported for the feeding year beginning October 1, production units also are based on the feeding year.

As a basic step in the calculation of livestock-production units, the production of each of the principal kinds of livestock was computed for the feeding year beginning October 1 (table 1). Monthly production data for milk and eggs are reported by the Department, and can be easily converted to a feeding-year basis. However, only calendar-year data are reported for live-weight production of hogs, cattle, sheep, and poultry, and adjustments in the data are required for each of these types of production except poultry.

Cattle production is divided into two groups, "grain-fattened" and "other" cattle, by the following calculation. To estimate the numbers of cattle put on feed during the year, the numbers of grain-fattened cattle on feed January 1 were multiplied by factors from 1.3 to 1.5 before 1945 and up to 1.8 in 1957. This number multiplied by the gain per head, which was assumed to increase gradually from 325 pounds per head in 1930 to 445 pounds in 1957, equals the total gain of grain-fattened cattle. The difference between the gain in "grain-fattened" cattle and live-weight production of "all" cattle and calves is used for the production of "other" cattle. A different factor is used for each of these two classes of cattle to determine production units. The calendar-year production data for these two groups of cattle and for sheep were adjusted to the October 1 year by adding 25 percent of the production in one year to 75 percent of the production in the succeeding year.

Data on live-weight production of hogs (table 1) are obtained by distributing production for the calendar year into quarters of the year, as shown in table 2 for 1958. The production of the October-December quarter is added to the first three quarters of the following year to obtain the production during the feeding year beginning October 1. The number of hogs on farms January 1, the pig crop, and the death loss are used in estimating the quarterly production. The production from each group of hogs is distributed to the different quarters of the year in accordance with the gain in weight during each quarter by means of the percentages shown in table 3.

The gain in weight made after January 1 by the spring pigs on hand on that date is credited to the first quarter of the year, when these pigs are marketed. The gain in weight made after January 1 by the fall pigs on hand on that date is distributed thus — 55 percent to the first quarter, 35 percent to the second quarter, and 10 percent to the third quarter, in accordance with the estimated gain of these pigs during each quarter. Sows and gilts on farms on January 1 (two-thirds of which are assumed to be gilts) are assumed to gain 125 pounds each during the ensuing year. Gilts held over another year (listed as sows December 31) gain another 25 pounds after the other gilts go to market. The gain in weight is credited to the respective quarters in accordance with their estimated gains during the quarter.

Table 1. - Data for computing annual livestock-production units, 1910-57

Year beginning October 1	Live-weight production								Other production		Horses and mules Jan. 1 2/		Goats clipped 1/
	Hogs	Cattle			Sheep and lambs	Poultry 1/							
		Grain-fattened cattle	Other cattle	Total		Farm chickens	Broilers	Turkeys	Milk	Eggs	2 years old and over	Colts	
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million eggs	1,000 head	1,000 head	1,000 head
1910	12,400	---	---	12,608	1,134	2,240	---	---	65,700	29,100	20,301	4,546	---
1911	12,100	---	---	13,502	1,238	2,220	---	---	66,400	28,400	20,569	4,708	---
1912	12,200	---	---	14,601	1,209	2,230	---	---	67,500	28,100	20,846	4,845	---
1913	12,500	---	---	15,388	1,250	2,300	---	---	69,200	27,900	21,247	4,931	---
1914	13,600	---	---	15,242	1,258	2,230	---	---	70,700	29,700	21,562	4,931	---
1915	13,700	---	---	15,734	1,152	2,170	---	---	72,000	28,900	21,694	4,840	---
1916	13,100	---	---	16,556	1,124	2,200	---	---	73,200	27,800	22,003	4,656	---
1917	14,300	---	---	15,934	1,210	2,350	---	---	73,800	28,000	22,370	4,353	---
1918	14,200	---	---	13,955	1,167	2,280	---	---	73,800	30,200	22,576	3,914	---
1919	13,600	---	---	12,649	980	2,230	---	---	75,400	29,800	22,386	3,356	2,367
1920	14,000	---	---	12,714	1,091	2,400	---	---	77,600	30,700	22,348	2,789	2,528
1921	15,900	---	---	13,093	1,096	2,530	---	---	80,600	32,700	22,271	2,317	2,254
1922	16,900	---	---	13,177	1,210	2,640	---	---	83,300	34,800	22,050	1,968	2,307
1923	15,800	---	---	13,345	1,408	2,516	---	---	88,200	34,600	21,578	1,707	2,548
1924	14,600	---	---	13,065	1,496	2,579	---	---	90,400	34,900	21,038	1,531	2,565
1925	14,600	---	---	12,692	1,584	2,729	---	---	92,700	36,984	20,491	1,495	3,124
1926	15,400	---	---	12,205	1,650	2,852	---	---	94,710	38,475	19,765	1,427	3,265
1927	16,500	---	---	12,263	1,746	2,660	---	---	95,675	38,339	19,120	1,328	3,716
1928	16,000	---	---	12,647	1,810	2,854	---	239	98,201	38,148	18,514	1,230	3,873
1929	15,300	1,416	11,720	13,136	1,930	2,875	---	228	99,463	38,818	17,981	1,143	4,241
1930	15,600	1,376	11,979	13,355	2,030	2,696	---	244	102,097	38,209	17,375	1,093	4,457
1931	16,500	1,350	12,671	14,021	1,885	2,868	---	303	103,789	37,101	16,822	990	4,201
1932	16,800	1,445	13,667	15,112	1,852	2,850	---	319	104,657	35,516	16,404	933	4,092
1933	15,000	1,396	13,359	14,755	1,898	2,449	97	300	102,453	34,450	15,984	1,013	3,916
1934	10,600	1,070	12,802	13,872	1,854	2,568	123	298	101,468	33,190	15,473	1,210	3,565
1935	12,000	1,591	12,650	14,241	1,848	2,789	152	405	101,505	34,343	14,839	1,387	3,715
1936	12,800	1,371	12,548	13,919	1,912	2,405	196	376	102,711	37,202	14,330	1,472	3,774
1937	15,100	1,705	12,267	13,972	2,012	2,538	239	395	104,781	36,970	13,690	1,555	3,918
1938	15,900	1,808	13,087	14,895	2,031	2,717	306	494	106,764	38,441	13,273	1,519	4,068

1939----:	17,600	2,044	13,527	15,571	2,083	2,598	413	502	109,081	39,494	13,000	1,478	4,297
1940----:	16,900	2,134	14,564	16,698	2,214	3,054	559	512	113,888	40,951	12,651	1,453	4,542
1941----:	19,400	2,256	15,927	18,183	2,298	3,546	674	522	118,565	47,498	12,346	1,309	4,322
1942----:	24,100	2,225	16,787	19,012	2,159	4,206	833	509	117,754	53,880	12,117	1,114	4,276
1943----:	23,600	2,062	17,509	19,571	1,980	3,578	818	584	116,238	57,850	11,668	945	4,109
1944----:	18,800	2,265	17,300	19,565	1,918	3,829	1,107	740	120,141	56,276	11,116	834	4,291
1945----:	18,900	2,387	16,741	19,128	1,800	3,246	884	714	117,661	55,468	10,434	674	3,939
1946----:	18,300	2,451	16,646	19,097	1,616	3,165	936	611	117,785	55,085	9,578	551	3,672
1947----:	18,400	2,379	16,205	18,584	1,429	2,768	1,127	574	112,593	54,281	8,800	479	3,164
1948----:	18,600	2,638	16,418	19,056	1,304	3,102	1,570	769	115,025	54,803	8,074	424	2,558
1949----:	19,800	2,766	17,942	20,708	1,322	2,789	1,945	817	116,694	58,720	7,415	366	2,530
1950----:	21,100	2,890	19,649	22,539	1,363	2,803	2,415	950	115,476	57,721	6,732	304	2,472
1951----:	20,600	3,413	21,034	24,447	1,446	2,524	2,624	1,049	113,507	57,809	5,887	263	2,287
1952----:	18,600	3,509	23,278	26,787	1,521	2,573	2,904	1,008	118,987	57,436	5,166	237	2,337
1953----:	17,400	3,780	23,756	27,536	1,590	2,430	3,236	1,161	122,018	58,382	4,572	219	2,618
1954----:	19,400	4,328	23,634	27,962	1,614	2,171	3,350	1,090	122,316	59,603	4,101	208	2,983
1955----:	19,500	4,398	23,373	27,771	1,579	2,176	4,270	1,274	125,092	60,281	3,728	200	3,164
1956----:	18,600	4,538	22,484	27,022	1,533	1,882	4,683	1,351	125,840	61,073	3,380	194	3,244
1957----:	19,000	4,700	22,775	27,475	1,595	2,019	5,431	1,334	124,923	59,924	3,165	189	3,437

1/ Production for the calendar year following October 1.

2/ On January 1 following October 1.

Table 2. - Estimating the live-weight production of hogs by quarters, 1958

Item	Number of hogs	Weight per head				Total live-weight produced				
		Beginning of year	When slaughtered	End of year	Gain in weight	Calendar year	January to March	April to June	July to September	October to December
	Million head	Pounds	Pounds	Pounds	Pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
Hogs on farms Jan. 1, 1958:										
Spring pigs	9.8	200	1/ 230	30	30	294	294	---	---	---
Fall pigs	32.9	65	2/ 224	159	159	5,231	2,877	1,831	523	---
Sows	2.8	---	---	---	125	350	158	122	52	18
Gilts 3/	5.6	---	---	---	125	700	315	245	105	35
Hogs on farms Dec. 31, 1958: from current pig crop:										
Spring pigs	9.9	---	---	200	200	1,980	---	198	693	1,089
Fall pigs	38.0	---	---	65	65	2,470	---	124	494	1,852
Gilts 3/	6.2	---	---	200	200	1,240	---	124	434	682
Deaths in year	10.3	---	---	---	---	---	---	---	---	---
Hogs sold	30.4	---	4/ 229	---	---	6,962	348	1,392	2,437	2,785
Sows, December 31, 1958	3.1	---	---	25	25	78	---	8	27	43
Live-weight produced as calculated						19,305	3,992	4,044	4,765	6,504
Live-weight produced as reported by AMS						19,421	---	---	---	---
Live-weight produced by quarters adjusted to AMS						19,421	4,032	4,077	4,786	6,526

1/ Average weight of barrows and gilts at 8 markets, January through March.
2/ Average weight of barrows and gilts at 8 markets, April through September.
3/ 2/3 of sows and gilts were assumed to be gilts.
4/ Average weight of barrows and gilts at 8 markets, October through December.

Table 3. - Estimated percentage of annual production made in each quarter

Item	January-March	April-June	July-September	October-December
	Percent	Percent	Percent	Percent
Hogs on farms Jan. 1:				
Spring pigs	100	---	---	---
Fall pigs	55	35	10	---
Sows and gilts	45	35	15	5
Current pig crop, on farms Dec. 31:				
Spring pigs	---	10	35	55
Fall pigs	---	5	20	75
Gilts	---	10	35	55
Sows, Dec. 31	---	10	35	55
Other hogs sold	5	20	35	40

In the same way, estimates are made of the gain in each quarter by the spring and fall pigs farrowed during the calendar year. More than half of the calendar-year pig crop is still "on farms, December 31." The rest are included in death loss or have been marketed (table 2).

The percentages shown in table 3 have been used since 1952. From 1938 to 1952, a different set of percentages was used, which tended to concentrate more production in the October to December quarter. Before 1938, a still different set of percentages was used, and concentration in the October to December quarter was even greater. A similar change appears over the years in the disappearance of concentrate feeds by quarters, as reported by the Agricultural Marketing Service, especially in the feed available for hogs after reasonable allowance has been made for each of the other kinds of livestock.

The calendar-year production data for broilers and turkeys starting January 1 following October 1 were used without adjustment for the feeding year. The number of chickens raised in the calendar year following October multiplied by the average weight of all chickens sold was used for production of farm chickens. (Chickens raised are mainly for replacements in laying flocks.)

The numbers of horses and mules 2 years old and over and of colts on farms on January 1 within the feeding year were used to compute production units for these livestock, as no data are available to show the amount of work done. The numbers of goats clipped during the year were used to compute production units for goats.

Two factors for each kind of livestock production (except goats, which receive little or no grain) are used in computing livestock-production units, one for concentrates and another for all feed (table 4). The feed fed to the average milk cow during the period 1940-45 is taken as 1.0. This is the same base period as that used in computing animal units. 4/ The average annual milk production per cow during the period was 4,380 pounds. The concentrates fed to produce this amount of milk amounted to 1,342 pounds, or 306 pounds per 1,000 pounds of milk produced. In terms of all feed consumed, the average dairy cow consumed 4,981 feed units 5/ per year, or 1,137 feed units per 1,000 pounds of milk produced. 6/ The livestock-production units from grain and other concentrates and from all feed are given in tables 5 and 6, respectively.

Index numbers of livestock-production units, animal units fed, feed consumed, and all livestock and livestock products are shown in table 7. The index of livestock-production units from all feed has agreed closely in recent years with the index of all livestock and livestock products. Comparisons of indexes of livestock-production units, animal units, and feed units consumed appear in figures 1 and 2. Livestock production during nearly 5 decades has increased a great deal more than has the number of animal units and somewhat more than the total quantity of feed consumed. During the last 10 years, the quantity of concentrates fed per livestock-production unit has changed very little, averaging about 0.74 ton of concentrates (table 8). Apparently, most of the increase in total feed efficiency is due to feeding an increasing proportion of concentrates in relation to forage, about a 5-percent increase since 1920. Although the efficiency with which broilers use feed has increased markedly, the increase has affected the overall efficiency of production of livestock products very little.

All feed consumed per production unit, excluding horses and mules, declined from 1920 to 1930, with below-average amounts consumed during the depression and drought of the 1930's, and above-average amounts consumed during World War II and again in recent years (table 9 and fig. 3). The overall decrease in feed per unit of production in 40 years is less than one-half of 1 percent a year. However, pasture was a much larger percentage of all feed before 1925 than it has been in recent years. This lowered percentage accounted for most of the decrease in all feed per unit of livestock-production.

4/ See footnote 2.

5/ A feed unit is the equivalent in feeding value of one pound of corn.

6/ U. S. Dept. Agr. Production Res. Rept. No. 21.

Table 4. - Factors for computing livestock-production units

Item	Unit	Livestock production units - From grain: Concentrates fed per unit	Livestock production units - From grain: Factor	Livestock production units - From all feed: All feed consumed per unit	Livestock production units - From all feed: Factor
		Pounds 1/		Feed units 1/	
On farm Jan. 1:					
Milk cows 2/	Head	1,342	1.0	4,981	1.0
Horses and mules 2 years old and over	do.	1,707	1.27	5,130	1.03
Colts	do.	345	.26	3,473	.70
Goats clipped	do.	---	---	765	.15
Live-weight produced:					
Grain-fattened cattle	Cwt.	567	.42	914	.18
Other cattle	do.	33	.025	732	.15
Sheep and lambs	do.	113	.08	1,969	.39
Hogs	do.	477	.36	545	.11
Chickens raised	do.	519	.39	568	.11
Broilers	do.	316	.23	362	.07
Turkeys	do.	579	.43	677	.13
Milk	1,000 pounds	306	.23	1,138	.23
Eggs	1,000 eggs	601	.45	633	.13

[1] The average feed consumption of the years 1940-45 was taken as the base period except that 1950-53 was taken for broilers. These are the same periods used in Animal Units of Livestock Fed Annually, 1909 to 1958, USDA Statistical Bulletin. (In process.)

[2] The average milk production per cow on farms January 1 for 1940-45 was 4,380 pounds.

Table 5. - Livestock-production units from grain and other concentrates, 1910-57

Year beginning October 1	Milk	Grain-fattened cattle	Other cattle 1/	Sheep and lambs	Hogs	Eggs	Farm chickens	Broilers	Turkeys	Horses and mules		Total	Total excluding horses and mules
										2 years old and over	Colts		
	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units	1,000 head	1,000 head	1,000 units	1,000 units
1910	15,111	---	8,195	907	44,640	13,095	8,736	---	---	25,782	1,182	117,648	90,684
1911	15,272	---	8,776	990	43,560	12,780	8,658	---	---	26,123	1,224	117,383	90,036
1912	15,525	---	9,491	967	43,920	12,645	8,697	---	---	26,474	1,260	118,979	91,245
1913	15,916	---	10,002	1,000	45,000	12,555	8,970	---	---	26,984	1,282	121,709	93,443
1914	16,261	---	9,907	1,006	48,960	13,365	8,697	---	---	27,384	1,282	126,862	98,196
1915	16,560	---	10,227	922	49,320	13,005	8,463	---	---	27,551	1,258	127,306	98,497
1916	16,836	---	10,761	899	47,160	12,510	8,580	---	---	27,944	1,211	125,901	96,746
1917	16,974	---	10,357	968	51,480	12,600	9,165	---	---	28,410	1,132	131,086	101,544
1918	16,974	---	9,071	934	51,120	13,590	8,892	---	---	28,672	1,018	130,271	100,581
1919	17,342	---	8,222	784	48,960	13,410	8,697	---	---	28,430	873	126,718	97,415
1920	17,848	---	8,264	873	50,400	13,815	9,360	---	---	28,382	725	129,667	100,560
1921	18,538	---	8,510	877	57,240	14,715	9,867	---	---	28,284	602	138,633	109,747
1922	19,159	---	8,565	968	60,840	15,660	10,296	---	---	28,004	512	144,004	115,488
1923	20,286	---	8,674	1,126	56,880	15,570	9,812	---	---	27,404	444	140,196	112,348
1924	20,792	---	8,492	1,197	52,560	15,705	10,058	---	---	26,718	398	135,920	108,804
1925	21,321	---	8,250	1,267	52,560	16,643	10,643	---	---	26,024	389	137,097	110,684
1926	21,783	---	7,933	1,320	55,440	17,314	11,123	---	---	25,102	371	140,386	114,913
1927	22,005	---	7,971	1,397	59,400	17,253	10,374	---	---	24,282	345	143,027	118,400
1928	22,586	---	8,221	1,448	57,600	17,167	11,131	---	1,028	23,513	320	143,014	119,181
1929	22,876	5,947	2,930	1,544	55,080	17,468	11,212	---	980	22,836	297	141,170	118,037
1930	23,482	5,779	2,995	1,624	56,160	17,194	10,514	---	1,049	22,066	284	141,147	118,797
1931	23,871	5,670	3,168	1,508	59,400	16,695	11,185	---	1,303	21,364	257	144,421	122,800
1932	24,071	6,069	3,417	1,482	60,480	15,982	11,115	---	1,372	20,833	243	145,064	123,988
1933	23,564	5,863	3,340	1,518	54,000	15,502	9,551	223	1,290	20,300	263	135,414	114,851
1934	23,338	4,494	3,200	1,483	38,160	14,936	10,015	283	1,281	19,651	315	117,156	97,190
1935	23,346	6,682	3,162	1,478	43,200	15,454	10,877	350	1,742	18,846	361	125,498	106,291
1936	23,624	5,758	3,137	1,530	46,080	16,741	9,380	451	1,617	18,199	383	126,900	108,318
1937	24,100	7,161	3,067	1,610	54,360	16,636	9,898	550	1,698	17,386	404	136,870	119,080
1938	24,556	7,594	3,272	1,625	57,240	17,298	10,596	704	2,124	16,857	395	142,261	125,009
1939	25,089	8,585	3,382	1,666	63,360	17,772	10,132	950	2,159	16,510	384	149,989	133,095

1940--------:	26,194	8,963	3,641	1,771	60,840	18,428	11,911	1,286	2,202	16,067	378	151,681	135,236
1941--------:	27,270	9,475	3,982	1,838	69,840	21,374	13,829	1,550	2,245	15,679	340	167,422	151,403
1942--------:	27,083	9,345	4,197	1,727	86,760	24,246	16,403	1,916	2,189	15,389	290	189,545	173,866
1943--------:	26,735	8,660	4,377	1,584	84,960	26,032	13,954	1,881	2,511	14,818	246	185,758	170,694
1944--------:	27,632	9,513	4,325	1,534	67,680	25,324	14,933	2,546	3,182	14,117	217	171,003	156,669
1945--------:	27,062	10,025	4,185	1,440	68,040	24,961	12,659	2,033	3,070	13,251	175	166,901	153,475
1946--------:	27,091	10,294	4,162	1,293	65,880	24,788	12,344	2,153	2,627	12,164	143	162,939	150,632
1947--------:	25,896	9,992	4,051	1,143	66,240	24,426	10,795	2,592	2,468	11,176	125	158,904	147,603
1948--------:	26,456	11,080	4,104	1,043	66,960	24,661	12,098	3,611	3,307	10,254	110	163,684	153,320
1949--------:	26,840	11,617	4,486	1,058	71,280	26,424	10,877	4,474	3,513	9,417	95	170,081	160,569
1950--------:	26,559	12,138	4,912	1,090	75,960	25,974	10,932	5,554	4,085	8,550	79	175,833	167,204
1951--------:	26,107	14,335	5,258	1,157	74,160	26,014	9,844	6,035	4,511	7,476	68	174,965	167,421
1952--------:	27,367	14,738	5,820	1,217	66,960	25,846	10,035	6,679	4,334	6,561	62	169,619	162,996
1953--------:	28,064	15,876	5,939	1,272	62,640	26,272	9,477	7,443	4,992	5,806	57	167,838	161,975
1954--------:	28,133	18,178	5,908	1,291	69,840	26,821	8,467	7,705	4,687	5,208	54	176,292	171,030
1955--------:	28,771	18,472	5,843	1,263	70,200	27,126	8,486	9,821	5,478	4,735	52	180,247	175,460
1956--------:	28,943	19,060	5,621	1,226	66,960	27,483	7,340	10,771	5,809	4,293	50	177,556	173,213
1957--------:	28,732	19,740	5,694	1,276	68,400	26,966	7,874	12,491	5,736	4,020	49	180,978	176,909

1/ Includes grain-fattened cattle 1910 to 1928. The same relation was assumed between live-weight production of all cattle and calves, except milk cows, and production units 1910 to 1928 as existed in 1929-33.

Table 6. - Livestock-production units from all feed, 1910-57

Year beginning October 1	Milk	Grain-fattened cattle	Other cattle 1/	Sheep and lambs	Goats	Hogs	Eggs	Farm chickens raised	Broilers	Turkeys	Horses and mules		Total	Total excluding horses and mules
											2 years old and over	Colts		
	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units	1,000 units	1,000 head	1,000 head	1,000 units	1,000 units
1910	15,111	---	20,803	4,423	---	13,640	3,783	2,464	---	---	20,910	3,182	84,316	60,224
1911	15,272	---	22,278	4,828	---	13,310	3,692	2,442	---	---	21,186	3,296	86,304	61,822
1912	15,525	---	24,092	4,715	---	13,420	3,653	2,453	---	---	21,471	3,392	88,721	63,858
1913	15,916	---	25,390	4,875	---	13,750	3,627	2,530	---	---	21,884	3,452	91,424	66,088
1914	16,261	---	25,149	4,906	---	14,960	3,861	2,453	---	---	22,209	3,452	93,251	67,590
1915	16,560	---	25,961	4,493	---	15,070	3,757	2,387	---	---	22,345	3,388	93,961	68,228
1916	16,836	---	27,317	4,384	---	14,410	3,614	2,420	---	---	22,663	3,259	94,903	68,981
1917	16,974	---	26,291	4,719	---	15,730	3,640	2,585	---	---	23,041	3,047	96,027	69,939
1918	16,974	---	23,026	4,551	---	15,620	3,926	2,508	---	---	23,253	2,740	92,598	66,605
1919	17,342	---	20,871	3,822	355	14,960	3,874	2,453	---	---	23,058	2,349	89,084	63,677
1920	17,848	---	20,978	4,255	379	15,400	3,991	2,640	---	---	23,018	1,952	90,461	65,491
1921	18,538	---	21,603	4,274	338	17,490	4,251	2,783	---	---	22,939	1,622	93,838	69,277
1922	19,159	---	21,742	4,719	346	18,590	4,524	2,904	---	---	22,712	1,378	96,074	71,984
1923	20,286	---	22,019	5,491	382	17,380	4,498	2,768	---	---	22,225	1,195	96,244	72,824
1924	20,792	---	21,557	5,834	385	16,060	4,537	2,837	---	---	21,669	1,072	94,743	72,002
1925	21,321	---	20,942	6,178	469	16,060	4,808	3,002	---	---	21,106	1,046	94,932	72,780
1926	21,783	---	20,138	6,435	490	16,940	5,002	3,137	---	---	20,358	999	95,282	73,925
1927	22,005	---	20,234	6,809	557	18,150	4,984	2,926	---	---	19,694	930	96,289	75,665
1928	22,586	---	20,868	7,059	581	17,600	4,959	3,139	---	311	19,069	861	97,033	77,103
1929	22,876	2,549	17,580	7,527	636	16,830	5,046	3,162	---	296	18,520	800	95,822	76,502
1930	23,482	2,477	17,968	7,917	669	17,160	4,967	2,966	---	317	17,896	765	96,584	77,923
1931	23,871	2,430	19,006	7,352	630	18,150	4,823	3,155	---	394	17,327	693	97,831	79,811
1932	24,071	2,601	20,500	7,223	614	18,480	4,617	3,135	---	415	16,896	653	99,205	81,656
1933	23,564	2,513	20,038	7,402	587	16,500	4,478	2,694	68	390	16,464	709	95,407	78,234
1934	23,338	1,926	19,203	7,231	535	11,660	4,315	2,825	86	387	15,937	847	88,290	71,506
1935	23,346	2,864	18,975	7,207	557	13,200	4,465	3,068	106	526	15,284	971	90,569	74,314
1936	23,624	2,468	18,822	7,457	566	14,080	4,836	2,646	137	489	14,760	1,030	90,915	75,125
1937	24,100	3,069	18,400	7,847	588	16,610	4,806	2,792	167	514	14,101	1,088	94,082	78,893
1938	24,556	3,254	19,630	7,921	610	17,490	4,997	2,989	214	642	13,671	1,063	97,037	82,303
1939	25,089	3,679	20,290	8,124	645	19,360	5,134	2,858	289	653	13,390	1,035	100,546	86,121

1940---:	26,194	3,841	21,846	8,635	681	18,590	5,324	3,359	391	666	13,031	1,017	103,575	89,527
1941---:	27,270	4,061	23,890	8,962	648	21,340	6,175	3,901	472	679	12,716	916	111,030	97,398
1942---:	27,083	4,005	25,180	8,420	641	26,510	7,004	4,627	583	662	12,481	780	117,976	104,715
1943---:	26,735	3,712	26,264	7,722	616	25,960	7,520	3,936	573	759	12,018	662	116,477	103,797
1944---:	27,632	4,077	25,950	7,480	644	20,680	7,316	4,212	775	962	11,449	584	111,761	99,728
1945---:	27,062	4,297	25,112	7,020	591	20,790	7,211	3,571	619	928	10,747	472	108,420	97,201
1946---:	27,091	4,412	24,969	6,302	551	20,130	7,161	3,482	655	794	9,865	386	105,798	95,547
1947---:	25,896	4,282	24,308	5,573	475	20,240	7,057	3,045	789	746	9,064	335	101,810	92,411
1948---:	26,456	4,748	24,627	5,086	384	20,460	7,124	3,412	1,099	1,000	8,316	297	103,009	94,396
1949---:	26,840	4,979	26,913	5,156	380	21,780	7,634	3,068	1,362	1,062	7,637	256	107,067	99,174
1950---:	26,559	5,202	29,473	5,316	371	23,210	7,504	3,083	1,690	1,235	6,934	213	110,790	103,643
1951---:	26,107	6,143	31,551	5,639	343	22,660	7,515	2,776	1,837	1,364	6,064	184	112,183	105,935
1952---:	27,367	6,316	34,917	5,932	351	20,460	7,467	2,830	2,033	1,310	5,321	166	114,470	108,983
1953---:	28,064	6,804	35,634	6,201	393	19,140	7,590	2,673	2,265	1,509	4,709	153	115,135	110,273
1954---:	28,133	7,790	35,451	6,295	447	21,340	7,748	2,388	2,345	1,417	4,224	146	117,724	113,354
1955---:	28,771	7,916	35,060	6,158	475	21,450	7,837	2,394	2,989	1,656	3,840	140	118,686	114,706
1956---:	28,943	8,168	33,726	5,979	487	20,460	7,939	2,070	3,278	1,756	3,481	136	116,423	112,806
1957---:	28,732	8,460	34,162	6,220	516	20,900	7,790	2,221	3,802	1,734	3,260	132	117,929	114,537

1/ Includes grain-fattened cattle 1910 to 1928. The same relation was assumed between live-weight production of all cattle and calves, except milk cows, and production units from 1910 to 1928 as existed in 1929-33.

Table 7. - Index numbers of livestock production units, animal units fed, feed consumed, and production of all livestock and livestock products, excluding horses and mules, 1910-57 1/

(1947-49=100)

Year beginning October 1	Livestock production units		Animal units fed		Feed consumed		All livestock and livestock products 4/
	From all concentrates 2/	From all feed 3/	Grain-consuming livestock	Grain-and-roughage-consuming livestock	Grain and other concentrates	All feed including pasture	
1910	59	63	74	79	63	69	61
1911	59	65	73	77	59	71	61
1912	59	67	73	77	65	72	63
1913	61	69	75	79	59	72	64
1914	64	71	78	83	61	80	67
1915	64	72	80	86	67	82	66
1916	63	72	78	87	60	78	67
1917	66	73	81	89	68	82	68
1918	65	70	82	90	65	86	66
1919	63	67	80	88	65	84	64
1920	65	69	78	86	70	84	66
1921	71	73	82	87	71	83	71
1922	75	76	89	89	72	84	74
1923	73	76	88	88	73	82	73
1924	71	76	85	85	65	75	71
1925	72	76	84	83	72	78	74
1926	75	78	87	83	72	79	76
1927	77	79	88	84	75	79	76
1928	77	81	88	85	75	80	77
1929	77	80	89	88	74	75	78
1930	77	82	89	89	69	74	80
1931	80	84	92	92	78	81	81
1932	81	86	94	97	82	82	82
1933	75	82	91	98	71	74	75
1934	63	75	75	87	54	72	72
1935	69	78	81	89	68	73	77
1936	70	79	81	88	60	73	76
1937	77	83	81	87	74	81	79
1938	81	86	89	91	78	81	85
1939	87	90	94	95	82	86	87
1940	88	94	94	97	87	92	92
1941	98	102	102	104	97	102	102
1942	113	110	119	114	118	113	111
1943	111	109	120	117	116	113	105
1944	102	105	107	110	107	112	104
1945	100	102	104	107	109	108	101
1946	98	100	99	103	101	103	100
1947	96	97	96	99	93	96	97
1948	100	99	100	99	101	100	103
1949	104	104	104	102	107	104	107
1950	109	109	108	106	111	109	112
1951	109	111	108	110	113	112	112
1952	106	114	103	112	104	110	114
1953	105	116	102	113	106	111	117
1954	111	119	106	115	106	113	120
1955	114	120	109	116	112	115	122
1956	113	118	107	114	111	119	121
1957	115	120	107	113	119	125	125

1/ See figures 1 and 2.

2/ Weighted by grain and other concentrates consumed.

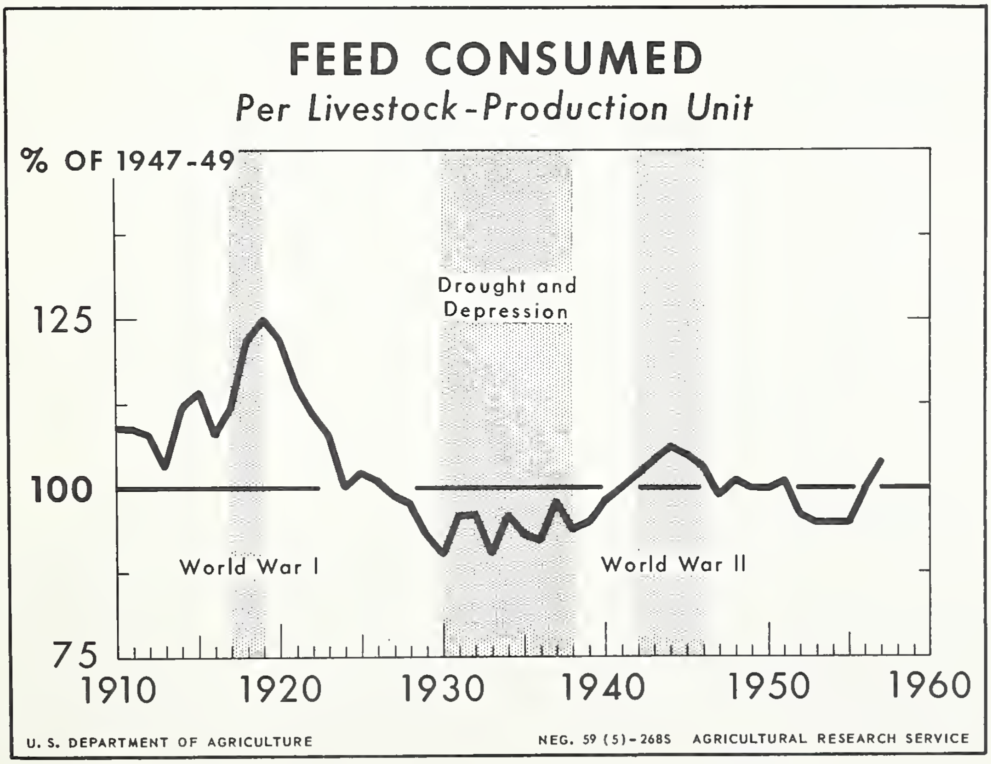
3/ Weighted by total feed consumed.

4/ Weighted by the value of production. For calendar year beginning January 1 after year indicated in stub. See Changes in Farm Production and Efficiency, U. S. Dept. Agr. Statis. Bul. 233.

Table 8. - Concentrates fed per livestock-production unit, 1910-57

Year beginning October 1	Total concentrates fed 1/	Production units from grain	Concentrates fed per unit
	Million tons	Million units	Tons
1910	101.4	117.6	0.86
1911	92.2	117.4	.79
1912	107.4	119.0	.90
1913	91.0	121.7	.75
1914	93.6	126.9	.74
1915	108.3	127.3	.85
1916	92.5	125.9	.73
1917	107.6	131.1	.82
1918	102.0	130.3	.78
1919	101.7	126.7	.80
1920	110.5	129.7	.85
1921	107.9	138.6	.78
1922	106.2	144.0	.74
1923	111.2	140.2	.79
1924	96.8	135.9	.71
1925	106.9	137.1	.78
1926	103.4	140.4	.74
1927	107.7	143.0	.75
1928	107.2	143.0	.75
1929	104.9	141.2	.74
1930	95.6	141.1	.68
1931	103.7	144.4	.72
1932	111.1	145.1	.77
1933	91.9	135.4	.68
1934	71.4	117.2	0.61
1935	94.1	125.5	.75
1936	75.5	126.9	.59
1937	97.0	136.9	.71
1938	99.0	142.3	.70
1939	102.2	150.0	.68
1940	108.0	151.7	.71
1941	118.7	167.4	.71
1942	142.1	189.6	.75
1943	139.0	185.8	.75
1944	128.9	171.0	.75
1945	132.5	166.9	.79
1946	122.7	162.9	.75
1947	110.6	158.9	.70
1948	120.1	163.7	.73
1949	126.5	170.1	.74
1950	130.4	175.8	.74
1951	132.4	175.0	.76
1952	122.7	169.6	.72
1953	125.7	167.8	.75
1954	126.1	176.3	.72
1955	132.2	180.2	.73
1956	130.5	177.6	.73
1957	139.7	181.0	.77

1/ Includes corn in silage and skim milk fed as a liquid as reported by the Agricultural Marketing Service, in Grain and Feed Statistics, U. S. Dept. Agr. Statis. Bul. 159, 97 pp., 1957, and Supplement to same, March 1958.


FEED CONSUMED

Per Livestock-Production Unit

Figure 3

Table 9. - Feed consumed per livestock-production unit, excluding horses and mules 1/

Year beginning October 1	Production units	All feed consumed	Feed per production unit	
			Quantity	Index no. (1947-49=100)
	Million units	Million tons	Tons	
1910	60.2	173.7	2.89	109
1911	61.8	178.9	2.89	109
1912	63.9	182.4	2.85	108
1913	66.1	181.1	2.74	103
1914	67.6	201.0	2.97	112
1915	68.2	206.2	3.02	114
1916	69.0	198.0	2.87	108
1917	69.9	207.2	2.96	112
1918	66.6	215.8	3.24	122
1919	63.7	211.3	3.32	125
1920	65.5	211.3	3.23	122
1921	69.3	210.4	3.04	115
1922	72.0	211.0	2.93	111
1923	72.8	207.5	2.85	108
1924	72.0	190.0	2.64	100
1925	72.8	197.4	2.71	102
1926	73.9	198.2	2.68	101
1927	75.7	198.8	2.63	99
1928	77.1	200.7	2.60	98
1929	76.5	188.2	2.46	93
1930	77.9	186.2	2.39	90
1931	79.8	203.5	2.55	96
1932	81.7	207.9	2.54	96
1933	78.2	185.9	2.38	90
1934	71.5	182.2	2.55	96
1935	74.3	183.5	2.47	93
1936	75.1	183.0	2.44	92
1937	78.9	205.5	2.60	98
1938	82.3	204.2	2.48	94
1939	86.1	217.0	2.52	95
1940	89.5	232.7	2.60	98
1941	97.4	258.4	2.65	100
1942	104.7	284.0	2.71	102
1943	103.8	285.8	2.75	104
1944	99.7	281.4	2.82	106
1945	97.2	271.3	2.79	105
1946	95.5	260.8	2.73	103
1947	92.4	243.2	2.63	99
1948	94.4	252.2	2.67	101
1949	99.2	261.6	2.64	100
1950	103.6	275.1	2.66	100
1951	105.9	282.8	2.67	101
1952	109.0	276.5	2.54	96
1953	110.3	279.7	2.54	96
1954	113.4	285.3	2.52	95
1955	114.7	289.2	2.52	95
1956	113.0	299.7	2.65	100
1957	114.6	315.8	2.76	104

1/ Livestock-production units in this table are computed by weighting production by all feed consumed, including pasture.